

### **REMARKS**

Pursuant to the present amendment, claims 1-11 and 23 have been canceled. Thus, claims 12-22 are pending in the present application. Claims 15-22 stand allowed. Reconsideration of the present application is respectfully requested.

As an initial matter, pursuant to the present amendment, claims 1-11 and 23 have been canceled as they were elected to a non-elected invention that was subject to a previous restriction requirement issued by the Office. Applicants specifically reserve the right to pursue the subject matter set forth in the canceled claims in a later filed application should they so desire.

In the Office Action, the Examiner objected to portions of the specification, namely page 15, line 15. It is believed that the reference to the "structure 200" currently set forth in the specification is correct. See, *e.g.*, Figures 2A-2B and page 14, line 5, wherein the semiconductor structure 200 is first introduced. Thus, it is believed that no correction to the specification is required. Withdrawal of the objection is respectfully requested.

In the Office Action, claims 12-14 were rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Shimotsusa (U.S. Patent No. 6,825,543). Applicants respectfully traverse the Examiner's rejection.

As the Examiner well knows, an anticipating reference by definition must disclose every limitation of the rejected claim in the same relationship to one another as set forth in the claim. *In re Bond*, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). To the extent the Examiner relies on principles of inherency in making the anticipation rejections in the Office Action, inherency requires that the asserted proposition necessarily flow from the disclosure. *In re Oelrich*, 212 U.S.P.Q. 323, 326 (C.C.P.A. 1981); *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1463-64 (Bd. Pat. App. & Int. 1990); *Ex parte Skinner*, 2 U.S.P.Q.2d 1788, 1789 (Bd. Pat. App. & Int. 1987); *In re King*,

231 U.S.P.Q. 136, 138 (Fed. Cir. 1986). It is not enough that a reference could have, should have, or would have been used as the claimed invention. "The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *Oelrich*, at 326, quoting *Hansgirk v. Kemmer*, 40 U.S.P.Q. 665, 667 (C.C.P.A. 1939); *In re Rijckaert*, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1993), quoting *Oelrich*, at 326; see also *Skinner*, at 1789. "Inherency ... may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *Skinner*, at 1789, citing *Oelrich*. Where anticipation is found through inherency, the Office's burden of establishing *prima facie* anticipation includes the burden of providing "...some evidence or scientific reasoning to establish the reasonableness of the examiner's belief that the functional limitation is an inherent characteristic of the prior art." *Skinner* at 1789.

Moreover, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); M.P.E.P. § 2142. Moreover, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); M.P.E.P. § 2143.03.

With respect to alleged obviousness, there must be something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561 (Fed. Cir. 1986). In fact, the absence of a suggestion to combine is dispositive in an obviousness determination. *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573 (Fed. Cir. 1997). The mere fact that the prior art can be combined or modified does not make the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990); M.P.E.P. § 2143.01. The consistent criterion for determining obviousness is whether the prior art would have suggested to one of ordinary skill in the art that the process should be carried out and would have a reasonable likelihood of success, viewed in the light of the prior art. Both the suggestion and the expectation of success must be founded in the prior art, not in the Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991; *In re O'Farrell*, 853 F.2d 894 (Fed. Cir. 1988); M.P.E.P. § 2142.

Applying these legal standards, it is respectfully submitted that independent claim 12, and all claims depending therefrom, are allowable over the art of record. Independent claim 12 requires, among other things, commonly connecting first conductive regions of a plurality of circuit elements with a first electric potential via a first common contact pad, commonly connecting second conductive regions of the plurality of circuit elements with a second electric potential via a second common contact pad, the first and second conductive regions being insulated from each other by a dielectric, and assessing a reliability of the dielectric by determining failure events of the circuit elements.

Shimotsusa is understood to be directed to a semiconductor device in which electro-thermal conversion elements and switching devices for flowing currents through the elements are

integrated on a substrate. Abstract. More specifically, Shimotsusa is directed to a liquid jet apparatus applicable to a recording apparatus to be used as an output terminal of information equipment such as a copying machine, a facsimile, a word processor, a computer or the like. Col. 1, ll. 6-15. According to Shimotsusa, Figure 38 is a sectional view showing a portion of a conventional ink jet recording head. The reference numeral 150 designates a heating portion while the reference numeral 160 designates a portion where ink is jetted. Moreover, a top plate 170 forms the liquid path 180 in association with the substrate 140. Col. 1, ll. 28-54. Shimotsusa goes on to note that an object of the invention described therein is to provide a liquid jet apparatus that can decrease the occupation areas of the switching devices superior in breakdown resistances on chips to enable further higher integration of electro-thermal conversion element driving semiconductor devices. Col. 2, ll. 22-28.

As thus understood, it is respectfully submitted that Shimotsusa is far afield from the present invention. Specifically, it is believed that Shimotsusa is not directed to assessing a reliability of a dielectric by determining failure events of the circuit elements as set forth in independent claim 12. In making the present rejection, the Examiner cited to Col. 35, ll. 31-41 and ll. 47-54, as the disclosure supporting this aspect of the invention set forth in claim 12. However, as understood by the undersigned, the passages of Shimotsusa cited by the Examiner merely describe the operational characteristics and performance of the device. At no point do the cited passages even remotely suggest assessing the reliability of a dielectric layer by determining failure events of certain circuit elements. Accordingly, it is respectfully submitted that Shimotsusa does not anticipate the invention defined by independent claim 12.

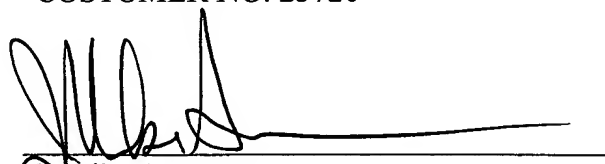
Moreover, it is respectfully submitted that Shimotsusa does not render obvious the invention defined by independent claim 12. As set forth above, Shimotsusa is directed to

providing a novel ink jet apparatus wherein integration or density of the device is increased. Shimotsusa is simply not directed to a methodology of assessing the reliability of a dielectric layer based upon failure events of circuit elements as set forth in independent claim 12. There is simply no motivation in the art of record to modify the teachings of Shimotsusa so as to arrive at Applicants' claimed invention. A recent Federal Circuit case makes it crystal clear that, in an obviousness situation, the prior art must disclose each and every element of the claimed invention, and that any motivation to combine or modify the prior art must be based upon a suggestion in the prior art. *In re Lee*, 61 U.S.P.Q.2d 143 (Fed. Cir. 2002). Conclusory statements regarding common knowledge and common sense are insufficient to support a finding of obviousness. *Id.* at 1434-35. Accordingly, it is respectfully submitted that independent claim 12, and all claims depending therefrom, are in condition for immediate allowance.

In view of the foregoing, it is respectfully submitted that all pending claims are in condition for immediate allowance. The Examiner is invited to contact the undersigned attorney at (713) 934-4055 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

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